



Complete Summary

GUIDELINE TITLE

Surgical management of otitis media with effusion in children.

BIBLIOGRAPHIC SOURCE(S)

National Collaborating Centre for Women's and Children's Health. Surgical management of otitis media with effusion in children. London (UK): National Institute for Health and Clinical Excellence (NICE); 2008 Feb. 22 p. (NICE clinical guideline; no. 60).

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE
METHODOLOGY - including Rating Scheme and Cost Analysis
RECOMMENDATIONS
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SCOPE

DISEASE/CONDITION(S)

Otitis media with effusion (OME)

GUIDELINE CATEGORY

Evaluation
Management
Treatment

CLINICAL SPECIALTY

Family Practice
Internal Medicine
Otolaryngology

Pediatrics
Speech-Language Pathology
Surgery

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Health Care Providers
Nurses
Patients
Physicians
Public Health Departments
Speech-Language Pathologists

GUIDELINE OBJECTIVE(S)

To provide guidance on the appropriate criteria for referral, assessment and optimum surgical management of children younger than 12 years with a suspected diagnosis of otitis media with effusion (OME)

TARGET POPULATION

Pediatric patients younger than 12 years in England, Wales and Northern Ireland with a suspected diagnosis of otitis media with effusion (OME) and suspected hearing loss including:

- Children with all types of cleft palate
- Children with Down's syndrome

Note: Children with syndromal disorders other than Down's syndrome, for example cranio-facial dysmorphism or polysaccharide storage disease, and children with multiple complex needs are not considered in this guidance since they will need individual and specific management of their overall condition by a multidisciplinary group of experts.

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis/Evaluation

1. Clinical history taking
2. Clinical examination
3. Hearing testing
4. Tympanometry

Treatment/Management

1. Surgical insertion of ventilation tubes
2. Adenoidectomy (only for persistent and/or frequent upper respiratory tract infection)
3. Non-surgical interventions
 - Autoinflation
 - Hearing aid

4. Management of children with Down's syndrome or cleft palate (use of multidisciplinary team)
5. Education of parents, carers, and children
6. Follow-up assessments

Note: The following interventions were considered but not recommended: antibiotics, topical or systemic antihistamines, topical or systemic decongestants, topical or systemic steroids, homeopathy, cranial osteopathy, acupuncture, dietary modification (including probiotics), immunostimulants, and massage.

MAJOR OUTCOMES CONSIDERED

- Mortality
- Complication rates from surgical treatment
- Complication rates from non-surgical treatment
- Complications of untreated disease
- Rate of symptomatic improvement with treatment
- Quality of life
- Cost-effectiveness of surgical and non-surgical treatment

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Note from the National Guideline Clearinghouse (NGC): This guideline was developed by the National Collaborating Centre for Women's and Children's Health (NCC-WCH) on behalf of the National Institute for Health and Clinical Excellence (NICE). See the "Availability of Companion Documents" field for the full version of this guidance.

Literature Search Strategy

Initial scoping searches were executed to identify relevant guidelines (local, national and international) produced by other development groups. The reference lists in these guidelines were checked against subsequent searches to identify missing evidence.

Relevant published evidence to inform the guideline development process and answer the clinical questions was identified by systematic search strategies. Additionally, stakeholder organisations were invited to submit evidence for consideration by the guideline development group (GDG) provided it was relevant to the clinical questions and of equivalent or better quality than evidence identified by the search strategies.

Systematic searches to answer the clinical questions formulated and agreed by the GDG were executed using the following databases via the OVID platform:

MEDLINE (1950 onwards); Embase (1980 onwards); Cumulative Index to Nursing and Allied Health Literature (1982 onwards); PsycINFO (1967 onwards); Cochrane Central Register of Controlled Trials (3rd quarter 2007); Cochrane Database of Systematic Reviews (3rd quarter 2007); and Database of Abstracts of Reviews of Effects (3rd quarter 2007).

Search strategies combined relevant controlled vocabulary and natural language in an effort to balance sensitivity and specificity. Unless advised by the GDG, searches were not date specific. Language restrictions were not applied to searches. Both generic and specially developed methodological search filters were used appropriately.

Searches to identify economic studies were undertaken using the above databases, and the National Health Service (NHS) Economic Evaluations Database (NHS EED) produced by the Centre for Reviews and Dissemination at the University of York. There was no systematic attempt to search grey literature (conferences, abstracts, theses and unpublished trials). Hand searching of journals not indexed on the databases was not undertaken.

All searches were conducted between 14 June 2007 and 12 September 2007. In keeping with the NICE methodology for developing short clinical guidelines, the searches were not rerun before the start of the consultation period. Depending on the question, any evidence published after the date period above was not included. This date period should be considered the starting point for searching for new evidence for future updates to this guideline.

Further details of the search strategies, including the methodological filters employed, can be obtained from the NCC-WCH.

Literature Review of Economic Evidence

For economic evaluations, the search strategies adopted were designed to identify any relevant economic studies. Abstracts of all papers identified were reviewed by the health economists and were discarded if they did not relate to the economic question being considered in the guideline. The relevant papers were retrieved and critically appraised. Potentially relevant references in the bibliographies of the reviewed papers were also identified and reviewed. All papers reviewed were assessed by the health economists against standard quality criteria for economic evaluation.

A literature review identified several economic evaluations addressing the cost-effectiveness of treatment options in the managements of otitis media with effusion (OME).

It was felt that none of the studies sufficiently addressed the cost-effectiveness of treatment alternatives for bilateral OME persisting for a period of 3 months within a context generalisable to the NHS. Therefore, a health economic model was developed for the guideline in order to guide GDG recommendations on treatment.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence for Intervention Studies

1++ High-quality meta-analyses, systematic reviews of randomised controlled trials (RCTs) or RCTs with a very low risk of bias

1+ Well-conducted meta-analyses, systematic reviews of RCTs or RCTs with a low risk of bias

1– Meta-analyses, systematic reviews of RCTs or RCTs with a high risk of bias

2++ High-quality systematic reviews of case-control or cohort studies; high-quality case-control or cohort studies with a very low risk of confounding, bias or chance and a high probability that the relationship is causal

2+ Well-conducted case-control or cohort studies with a low risk of confounding, bias or chance and a moderate probability that the relationship is causal

2– Case-control or cohort studies with a high risk of confounding, bias or chance and a significant risk that the relationship is not causal

3 Non-analytical studies (for example case reports, case series)

4 Expert opinion, formal consensus

Levels of Evidence for Studies of the Accuracy of Diagnostics Tests

Ia Systematic reviews (with homogeneity)^a of level-1 studies^b

Ib Level-1 studies^b

II Level-2 studies^c; systematic reviews of level-2 studies

III Level-3 studies^d; systematic reviews of level-3 studies

IV Consensus, expert committee reports or opinions and/or clinical experience without explicit critical appraisal; or based on physiology, bench research or 'first principles'

^a Homogeneity means there are no or minor variations in the directions and degrees of results between individual studies that are included in the systematic review.

^b Level-1 studies are studies that use a blind comparison of the test with a validated reference standard (gold standard) in a sample of patients that reflects the population to whom the test would apply.

^c Level-2 studies are studies that have only one of the following:

- Narrow population (the sample does not reflect the population to whom the test would apply)
- Use a poor reference standard (defined as that where the 'test' is included in the 'reference', or where the 'testing' affects the 'reference')
- The comparison between the test and reference standard is not blind
- Case-control studies

^d Level-3 studies are studies that have at least two or three of the features listed above.

METHODS USED TO ANALYZE THE EVIDENCE

Meta-Analysis of Randomized Controlled Trials
Review of Published Meta-Analyses
Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Note from the National Guideline Clearinghouse (NGC): This guideline was developed by the National Collaborating Centre for Women's and Children's Health (NCC-WCH) on behalf of the National Institute for Health and Clinical Excellence (NICE). See the "Availability of Companion Documents" field for the full version of this guidance.

Synthesis of Clinical Effectiveness Evidence

Evidence relating to clinical effectiveness was reviewed using established guides and classified using the established hierarchical system (see the "Rating Scheme for the Strength of the Evidence" field). This system reflects the susceptibility to bias that is inherent in particular study designs.

The type of clinical question dictates the highest level of evidence that may be sought. In assessing the quality of the evidence, each study receives a quality rating coded as '++', '+' or '-'. For issues of therapy or treatment, the highest possible evidence level (EL) is a well-conducted systematic review or meta-analysis of randomised controlled trials (RCTs) (EL = 1++) or an individual RCT (EL = 1+). Studies of poor quality are rated as '-'. Usually, studies rated as '-' should not be used as a basis for making a recommendation, but they can be used to inform recommendations. For issues of clinical presentation, the highest possible level of evidence is a cohort study (EL = 2++).

For each clinical question, the highest available level of evidence was selected. Where appropriate, for example, if a systematic review, meta-analysis or RCT existed in relation to a question, studies of a weaker design were not included. Where systematic reviews, meta-analyses and RCTs did not exist, other appropriate experimental or observational studies were sought.

The system described above covers studies of treatment effectiveness. However, it is less appropriate for studies reporting diagnostic tests of accuracy. In the absence of a validated ranking system for these types of study, NICE has developed a hierarchy for evidence of accuracy of diagnostic tests that takes into account the various factors likely to affect the validity of these studies (see the "Rating Scheme for the Strength of the Evidence" field).

For economic evaluations, the search strategies adopted were designed to identify any relevant economic studies. Abstracts of all papers identified were reviewed by the health economists and were discarded if they did not relate to the economic question being considered in the guideline. The relevant papers were retrieved and critically appraised. Potentially relevant references in the bibliographies of the reviewed papers were also identified and reviewed. All papers reviewed were assessed by the health economists against standard quality criteria for economic evaluation.

Evidence was synthesised qualitatively by summarising the content of identified papers in a narrative manner with brief statements accurately reflecting the evidence and producing evidence tables. Quantitative synthesis (meta-analysis) was performed where appropriate.

Summary results and data are presented in the guideline text. More detailed results and data are presented in the evidence tables on the accompanying CD-ROM. Where possible, dichotomous outcomes are presented as relative risks (RRs) with 95% confidence intervals (CIs), and continuous outcomes are presented as mean differences with 95% CIs or standard deviations (SDs). Meta-analyses of the diagnostic accuracy of a test are presented as pooled sensitivities and pooled specificities with corresponding 95% CIs.

Health Economics

The aim of the economic input into this short guideline was to inform the GDG of potential economic issues relating to the surgical management of otitis media with effusion (OME), and to ensure that recommendations represented a cost-effective use of scarce resources.

A single clinical question, what is the clinical and cost-effectiveness of various treatments of OME, was prioritised for economic analysis as it was thought that economic considerations would be particularly important in formulating recommendations on this.

A systematic search for published economic evidence was undertaken for this question. For economic evaluations, no standard system of grading the quality of evidence exists and included papers were assessed using a quality assessment checklist based on good practice in decision-analytic modelling.

In addition to the review, a decision-analytic model was developed to compare four treatment options. A detailed description of the model is included in Appendix C of the full version of the guideline alongside reviews of the relevant published economic literature.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus
Informal Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Note from the National Guideline Clearinghouse (NGC): This guideline was developed by the National Collaborating Centre for Nursing and Supportive Care (NCC-NSC) on behalf of the National Institute for Health and Clinical Excellence (NICE). See the "Availability of Companion Documents" field for the full version of this guidance.

The Guideline Development Group (GDG)

The guideline was developed by a multi-professional and lay working group (the Guideline Development Group or GDG) convened by the National Collaborating Centre for Women's and Children's Health (NCC-WCH). Membership included one pediatric (ear nose throat) ENT surgeon as the Guideline Leader, two ENT surgeons with special interest in children with cleft palate and Down's syndrome, one pediatric audiovestibular physician, two general practitioners, two community paediatricians, one pediatric audiologist, one nurse, two patient/carer/consumer representatives and one external advisor.

Staff from the NCC-WCH provided methodological support for the guideline development process, undertook systematic searches, retrieval and appraisal of the evidence, health economics modelling and, together with the Guideline Leader, wrote successive drafts of the guideline.

All GDG members' interests were recorded on declaration forms provided by NICE. The form covered consultancies, fee-paid work, shareholdings, fellowships, and support from the healthcare industry.

Forming and Grading Recommendations

The evidence tables and narrative summaries for the key clinical questions being discussed were made available to the GDG one week before each scheduled GDG meeting, and all the members were expected to have read these in advance. For each clinical question, recommendations were derived using, and explicitly linked to, the evidence that supported them. Informal consensus methods were used by the GDG to agree evidence statements and recommendations, including the areas where important clinical questions were identified but no substantial evidence existed.

The process by which the evidence statements informed the recommendations is summarized in a 'GDG translation' section in the relevant evidence review. Formal consensus methods were used to agree guideline recommendations and select five to seven key priorities for implementation.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

The guideline development group identified the various treatment alternatives as being a priority for economic analysis within this guideline and the results of this are summarised here; further details are given in Appendix C of the full version of the original guideline document.

The health economic model suggested that ventilation tubes were a cost-effective strategy for the treatment of persistent bilateral otitis media with effusion (OME). The model posited a relationship between hearing levels and quality-adjusted life years (QALYs) and showed that ventilation tubes were unambiguously more cost-effective than ventilation tubes plus adjuvant adenoidectomy providing the latter did not produce greater hearing gain over time and did not reduce re-insertion rates by more than 13.1 percentage points. The model also showed ventilation tubes to be more cost-effective than hearing aids, even with full adherence, as long as ventilation tubes resulted in a gain of at least 0.022 QALYs more than would be achieved with hearing aids. The incremental cost-effectiveness ratio (ICER) for ventilation tubes was calculated at just under 16,000 pounds sterling per QALY.

The baseline cost-effectiveness ratios suggest that the surgical strategy of ventilation tubes is cost-effective according to a willingness-to-pay threshold of 20,000 pounds sterling per QALY. However, this baseline analysis needs to be interpreted with considerable caution. Sensitivity analysis suggested that there are plausible scenarios in which either hearing aids or adjuvant adenoidectomy could be preferred options on cost-effectiveness grounds. Nevertheless, given the concerns about the higher rate of surgical complications with adjuvant adenoidectomy and about acceptability and adherence with hearing aids, the baseline result is a reasonable one on which to base a recommendation.

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

This guideline has been developed in accordance with the NICE guideline development process. This has included giving registered stakeholder organisations the opportunity to comment on the scope of the guideline at the initial stage of development and on the evidence and recommendations at the concluding stage.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Note from the National Guideline Clearinghouse (NGC): This guideline was developed by the National Collaborating Centre for Women's and Children's Health

(NCC-WCH) on behalf of the National Institute for Health and Clinical Excellence (NICE). See the "Availability of Companion Documents" field for the full version of this guidance.

Clinical Presentation

Concerns from parents/carers or from professionals about features suggestive of otitis media with effusion (OME) should lead to initial assessment and referral for formal assessment if considered necessary. These features include:

- Hearing difficulty (for example, mishearing when not looking at you, difficulty in a group, asking for things to be repeated)
- Indistinct speech or delayed language development
- Repeated ear infections or earache
- History of recurrent upper respiratory tract infections or frequent nasal obstruction
- Behavioural problems, particularly lack of concentration or attention, or being withdrawn
- Poor educational progress
- Less frequently, balance difficulties (for example, clumsiness), tinnitus and intolerance of loud sounds

All children with Down's syndrome and all children with cleft palate should be assessed regularly for OME.

Diagnosis of OME

Formal assessment of a child with suspected OME should include:

- Clinical history taking, focusing on:
 - Poor listening skills
 - Indistinct speech or delayed language development
 - Inattention and behaviour problems
 - Hearing fluctuation
 - Recurrent ear infections or upper respiratory tract infections
 - Balance problems and clumsiness
 - Poor educational progress
- Clinical examination, focusing on:
 - Otoscopy
 - General upper respiratory health
 - General developmental status
- Hearing testing, which should be carried out by trained staff using tests suitable for the developmental stage of the child, and calibrated equipment
- Tympanometry

Co-existing causes of hearing loss (for example, sensorineural, permanent conductive and non-organic causes) should be considered when assessing a child with OME and managed appropriately.

Appropriate Time for Intervention

The persistence of bilateral OME and hearing loss should be confirmed over a period of 3 months before intervention is considered. The child's hearing should be re-tested at the end of this time.

During the active observation period, advice on educational and behavioral strategies to minimize the effects of the hearing loss should be offered.

Children Who Will Benefit from Surgical Intervention

Children with persistent bilateral OME documented over a period of 3 months with a hearing level in the better ear of 25–30 decibels hearing level (dBHL) or worse averaged at 0.5, 1, 2 and 4 kHz (or equivalent decibels [dBA] where dBHL not available) should be considered for surgical intervention.

Exceptionally, healthcare professionals should consider surgical intervention in children with persistent bilateral OME with a hearing loss less than 25–30 dBHL where the impact of the hearing loss on a child's developmental, social or educational status is judged to be significant.

Surgical Interventions

Once a decision has been taken to offer surgical intervention for OME in children, the insertion of ventilation tubes is recommended. Adjuvant adenoidectomy is not recommended in the absence of persistent and/or frequent upper respiratory tract symptoms.

Children who have undergone insertion of ventilation tubes for OME should be followed up and their hearing should be re-assessed.

Non-surgical Interventions

The following treatments are not recommended for the management of OME:

- Antibiotics
- Topical or systemic antihistamines
- Topical or systemic decongestants
- Topical or systemic steroids
- Homeopathy
- Cranial osteopathy
- Acupuncture
- Dietary modification, including probiotics
- Immunostimulants
- Massage

Autoinflation may be considered during the active observation period for children with OME who are likely to cooperate with the procedure.

Hearing aids should be offered to children with persistent bilateral OME and hearing loss as an alternative to surgical intervention where surgery is contraindicated or not acceptable.

Management of OME in Children with Down's Syndrome

The care of children with Down's syndrome who are suspected of having OME should be undertaken by a multidisciplinary team with expertise in assessing and treating these children.

Hearing aids should normally be offered to children with Down's syndrome and OME with hearing loss.

Before ventilation tubes are offered as an alternative to hearing aids for treating OME in children with Down's syndrome, the following factors should be considered:

- The severity of hearing loss
- The age of the child
- The practicality of ventilation tube insertion
- The risks associated with ventilation tubes
- The likelihood of early extrusion of ventilation tubes

Management of OME in Children with Cleft Palate

The care of children with cleft palate who are suspected of having OME should be undertaken by the local otological and audiological services with expertise in assessing and treating these children in liaison with the regional multidisciplinary cleft lip and palate team.

Insertion of ventilation tubes at primary closure of the cleft palate should be performed only after careful otological and audiological assessment.

Insertion of ventilation tubes should be offered as an alternative to hearing aids in children with cleft palate who have OME and persistent hearing loss.

Information for Children, Parents and Carers

Parents/carers and children should be given information on the nature and effects of OME, including its usual natural resolution.

Parents/carers and children should be given the opportunity to discuss options for treatment of OME, including their benefits and risks.

Verbal information about OME should be supplemented by written information appropriate to the stage of the child's management.

CLINICAL ALGORITHM(S)

Algorithms are provided in the full guideline document and quick reference guide for:

- Care Pathway for Children with Suspected Otitis Media with Effusion (OME)
- Care Pathway for Children with Down's Syndrome
- Care Pathway for Children with Cleft Palate

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

Recommendations are based on clinical and cost effectiveness evidence, and where this is insufficient, the Guideline Development Group (GDG) used all available information sources and experience to make consensus recommendations.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Effective diagnosis, management and treatment of otitis media with effusion (OME) in children

POTENTIAL HARMS

Complications of Ventilation Tuber Insertion

- Evidence shows that otorrhoea, focal atrophy or retraction of the tympanic membrane and tympanosclerosis are relatively common complications of ventilation tube insertion. Serious complications such as perforation of the tympanic membrane are almost twice as common with long-term tubes than with short-term tubes. Tube insertion is also associated with an increased risk of focal atrophy/retraction and tympanosclerosis compared with myringotomy or no surgery.
- Results from a cohort study show that children undergoing ventilation tube insertion for otitis media with effusion (OME) persisting for 3 months or more have an increased risk of tympanic membrane pathological abnormalities and elevated hearing thresholds at 6–10 years following the surgery, compared with children who did not have tube insertion.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

This guidance represents the view of the National Institute for Health and Clinical Excellence, which was arrived at after careful consideration of the evidence available. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. The guidance does not, however, override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer, and informed by the summary of product characteristics of any drugs they are considering.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

The Healthcare Commission assesses the performance of National Health Service (NHS) organizations in meeting core and developmental standards set by the Department of Health in 'Standards for better health', issued in July 2004. Implementation of clinical guidelines forms part of the developmental standard D2. Core standard C5 says that nationally agreed guidance should be taken into account when NHS organisations are planning and delivering care.

NICE has developed tools to help organisations implement this guidance (listed below). These are available on their website (<http://guidance.nice.org.uk/CG60>).

- Slides highlighting key messages for local discussion
- Costing tools:
 - Costing report to estimate the national savings and costs associated with implementation
 - Costing template to estimate the local costs and savings involved
- Audit support to monitor local practice

Key Priorities for Implementation

Diagnosis of Otitis Media with Effusion (OME)

Formal assessment of a child with suspected OME should include:

- Clinical history taking, focusing on:
 - Poor listening skills
 - Indistinct speech or delayed language development
 - Inattention and behaviour problems
 - Hearing fluctuation
 - Recurrent ear infections or upper respiratory tract infections
 - Balance problems and clumsiness
 - Poor educational progress
- Clinical examination, focusing on:
 - Otoscopy
 - General upper respiratory health
 - General developmental status
- Hearing testing, which should be carried out by trained staff using tests suitable for the developmental stage of the child, and calibrated equipment
- Tympanometry

Children Who Will Benefit from Surgical Intervention

- Children with persistent bilateral OME documented over a period of 3 months with a hearing level in the better ear of 25–30 dBHL (decibels hearing level) or worse averaged at 0.5, 1, 2 and 4 kHz (or equivalent decibels [dBA] where dBHL not available) should be considered for surgical intervention.

Surgical Interventions

- Once a decision has been taken to offer surgical intervention for OME in children, insertion of ventilation tubes is recommended. Adjuvant

adenoidectomy is not recommended in the absence of persistent and/or frequent upper respiratory tract symptoms.

Non-surgical Interventions

- The following treatments are not recommended for the management of OME:
 - Antibiotics
 - Topical or systemic antihistamines
 - Topical or systemic decongestants
 - Topical or systemic steroids
 - Homeopathy
 - Cranial osteopathy
 - Acupuncture
 - Dietary modification, including probiotics
 - Immunostimulants
 - Massage
- Hearing aids should be offered to children with persistent bilateral OME and hearing loss as an alternative to surgical intervention where surgery is contraindicated or not acceptable.

Management of OME in Children with Down's Syndrome

- Hearing aids should normally be offered to children with Down's syndrome and OME with hearing loss.

Management of OME in Children with Cleft Palate

- Insertion of ventilation tubes at primary closure of the cleft palate should be performed only after careful otological and audiological assessment.
- Insertion of ventilation tubes should be offered as an alternative to hearing aids in children with cleft palate who have OME and persistent hearing loss.

IMPLEMENTATION TOOLS

Audit Criteria/Indicators
Clinical Algorithm
Patient Resources
Quick Reference Guides/Physician Guides
Resources
Slide Presentation

For information about [availability](#), see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

National Collaborating Centre for Women's and Children's Health. Surgical management of otitis media with effusion in children. London (UK): National Institute for Health and Clinical Excellence (NICE); 2008 Feb. 22 p. (NICE clinical guideline; no. 60).

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2008 Feb

GUIDELINE DEVELOPER(S)

National Collaborating Centre for Women's and Children's Health - National Government Agency [Non-U.S.]

SOURCE(S) OF FUNDING

National Institute for Health and Clinical Excellence (NICE)

GUIDELINE COMMITTEE

Guideline Development Group

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Group Members: Peter Bull, GDG *Chair*; Consultant ENT Surgeon, Sheffield Children's Hospital; Helen Barrow, Patient/Consumer Representative; Gareth Davies, Patient/Consumer Representative; Chief Executive, Cleft Lip and Palate Association; Sarita Fonseca, Consultant Paediatrician (Audiology), St George's Hospital, London; Mark Haggard, GDG Expert Adviser; Clinical Trialist and Methodologist, Multicentre Otitis Media Study Group, MRC Cambridge; John Hart, GP, Kettering; Teresa Loxley, Senior Chief Paediatric Audiologist, Head of Audiology Services, Sheffield Children's NHS Foundation Trust; Wanda Neary, Consultant Community Paediatrician, Warrington; Kenneth Pearman, Consultant ENT Surgeon, Birmingham Children's Hospital; Ewa Raglan, Consultant Audiovestibular Physician, Great Ormond Street Hospital, London; Patrick Sheehan, Consultant ENT Surgeon, North Manchester General Hospital; Jo Williams, Advanced Nurse Practitioner, Birmingham Children's Hospital; Ian

Williamson, Senior Lecturer in Primary Medical Care, University of Southampton; Monica Lakhanpaul, Clinical Co-director, Children's Health, National Collaborating Centre for Women's and Children's Health; Rajesh Khanna, Senior Research Fellow, National Collaborating Centre for Women's and Children's Health; Paul Jacklin, Senior Health Economist, National Collaborating Centre for Women's and Children's Health; Eva Gautam-Aitken, Project Manager, National Collaborating Centre for Women's and Children's Health; Debbie Pledge, Senior Information Scientist, National Collaborating Centre for Women's and Children's Health; Rupert Franklin, Work Programmer Coordinator, National Collaborating Centre for Women's and Children's Health; Andrew Welsh, Editor

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

At each Guideline Development Group (GDG) meeting, all GDG members declared any potential conflict of interests. All GDG members' interests were recorded on declaration forms provided by NICE. The form covered consultancies, fee-paid work, shareholdings, fellowships, and support from the healthcare industry. These declarations can be found in Appendix A of the full version of the original guideline document.

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) format from the [National Institute for Health and Clinical Excellence \(NICE\) Web site](#).

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Surgical management of otitis media with effusion in children. Full guideline. London (UK): National Institute for Health and Clinical Excellence (NICE); 2008 Feb. 92 p. (Clinical guideline; no. 60). Electronic copies: Available in Portable Document Format (PDF) format from the [National Institute for Health and Clinical Excellence \(NICE\) Web site](#).
- Surgical management of otitis media with effusion in children. Quick reference guide. London (UK): National Institute for Health and Clinical Excellence; 2008 Feb. 8 p. (Clinical guideline; no. 60). Electronic copies: Available in Portable Document Format (PDF) from the [NICE Web site](#).
- Surgical management of OME. Costing report. Implementing NICE guidance. London (UK): National Institute for Health and Clinical Excellence; 2008 Feb. 26 p. (Clinical guideline; no. 60). Electronic copies: Available in Portable Document Format (PDF) from the [NICE Web site](#).
- Surgical management of OME. Costing template. Implementing NICE guidance. London (UK): National Institute for Health and Clinical Excellence; 2008 Feb. Various p. (Clinical guideline; no. 60). Electronic copies: Available in Portable Document Format (PDF) from the [NICE Web site](#).

- Surgical management of otitis media with effusion in children. Implementing NICE guidance. Slide set. London (UK): National Institute for Health and Clinical Excellence; 2008. 15 p. (Clinical guideline; no. 60). Electronic copies: Available in Portable Document Format (PDF) from the [NICE Web site](#).
- Otitis media with effusion. Audit support. London (UK): National Institute for Health and Clinical Excellence; 2008. 8 p. (Clinical guideline; no. 60). Electronic copies: Available in Portable Document Format (PDF) from the [NICE Web site](#).
- The guidelines manual 2007. London (UK): National Institute for Health and Clinical Excellence (NICE); 2007 April. Electronic copies: Available in Portable Document Format (PDF) from the [NICE Web site](#).

Print copies: Available from the National Health Service (NHS) Response Line 0870 1555 455. ref: N1461. 11 Strand, London, WC2N 5HR.

Additional accompanying guideline materials can be found from the [National Institute for Health and Clinical Excellence \(NICE\) Web site](#).

PATIENT RESOURCES

The following is available:

- Surgical management of glue ear in children. Understanding NICE guidance - Information for people who use NHS services. London (UK): National Institute for Health and Clinical Excellence; 2008 Feb. 8 p. (Clinical guideline; no. 60). Electronic copies: Available in Portable Document Format (PDF) from the [National Institute for Health and Clinical Excellence \(NICE\) Web site](#).

Print copies: Available from the National Health Service (NHS) Response Line 0870 1555 455. ref: N1462. 11 Strand, London, WC2N 5HR.

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